

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-31. (Canceled).

32. (Currently Amended) A radio communication method for a radio communication system, the radio communication system being composed of a plurality of radio communication devices in such a manner that radio communication devices other than a given radio communication device exist within a communication area of the given radio communication device, each of the plurality of radio communication devices being able to accommodate and manage a radio communication terminal, and the radio communication method being performed by the given radio communication device, comprising:

a detection step of detecting existence of other radio communication devices within the communication area of the given radio communication device;

a time slot division step of dividing a communication period on a wireless medium into a plurality of time slots based on a number of other radio communication devices detected; and

a time slot setting step of setting a first time slot which is different from a second time slot as a time slot which can be used at higher priority by the given radio communication device in order to manage an accommodated radio communication terminal, the second time slot being any one of time slots ~~a time slot~~ which can be used at higher priority by ~~one of~~ the other radio communication devices; and

a contention resolution step of performing contention resolution processing when the first time slot and the second time slot overlap each other, wherein:

in the contention resolution step, the given radio communication device exchanges identification information with a radio communication device which can use the second time slot at higher priority,

the given radio communication device determines whether or not the setting of time slots should be changed based on a comparison result of the identification information of the given radio communication device with the identification information of the radio communication device which can use the second time slot at higher priority, and

when the given radio communication device determines that setting of time slots should be changed, the given radio communication device increases the number of time slots by increasing a division number of the communication period on the wireless medium and selects a time slot which can be used at higher priority by the given radio communication device among the increased time slots.

33 and 34. (Canceled).

35. (Previously Presented) The radio communication method according to claim 32, comprising a time slot identification information sending step of sending identification information of the first time slot to one of the other radio communication devices, so that one of the other radio communication devices can select the second time slot based on the identification information of the first time slot.

36. (Previously Presented) The radio communication method according to claim 32, comprising a priority communication step of accessing the wireless medium in the first time slot, using a waiting time shorter than those for the other radio communication devices.

37. (Previously Presented) The radio communication method according to claim 36, comprising a non-priority communication step of accessing the wireless medium in time slots except for the first time slot, using a waiting time longer than that for one of the other radio communication devices.

38. (Previously Presented) The radio communication method according to claim 32, wherein, in the time slot division step, the given radio communication device divides the communication period evenly into the plurality of time slots, the communication period having a common length of a common period which is determined among the radio communication devices.

39. (Previously Presented) The radio communication method according to claim 38, comprising a synchronization step of synchronizing with the other radio communication devices regarding the common period.

40. (Previously Presented) The radio communication method according to claim 32, comprising a time slot resetting step of, when it is detected that the radio communication device

which can use the second time slot at higher priority shuts down, resetting the plurality of time slots so that the second time slot can be used by the radio communication devices.

41. (Currently Amended) A radio communication device which is a given radio communication device in a radio communication system, the radio communication system being composed of a plurality of radio communication devices in such a manner that radio communication devices other than the given radio communication device exist within a communication area of the given radio communication device, and each of the plurality of radio communication devices being able to accommodate and manage a radio communication terminal, comprising:

a detection section that detects existence of other radio communication devices within the communication area of the given radio communication device;

a time slot division section that divides a communication period on a wireless medium into a plurality of time slots based on a number of other radio communication devices detected;
and

a time slot setting section that sets a first time slot which is different from a second time slot as a time slot which can be used at higher priority by the given radio communication device in order to manage an accommodated radio communication terminal, the second time slot being any one of time slots ~~a time slot~~ which can be used at higher priority by ~~one of~~ the other radio communication devices; and

a contention resolution section that performs contention resolution processing when the first time slot and the second time slot overlap each other, wherein:

the contention resolution section is so arranged as to exchange identification information with a radio communication device which can use the second time slot at higher priority, and is so arranged as to determine whether or not the setting of time slots should be changed based on a comparison result of the identification information of the given radio communication device with the identification information of the radio communication device which can use the second time slot at higher priority, and

when the contention resolution section determines that setting of time slots should be changed, the time slot division section increases the number of time slots by increasing a division number of the communication period on the wireless medium, and the time slot setting section selects a time slot which can be used at higher priority by the given radio communication device among the increased time slots.

42 and 43. (Canceled).

44. (Previously Presented) The radio communication device according to claim 41, comprising a time slot identification information sending section that sends identification information of the first time slot to one of the other radio communication devices, so that one of the other radio communication devices can select the second time slot based on the identification information of the first time slot.

45. (Previously Presented) The radio communication device according to claim 41, comprising a priority communication section that accesses the wireless medium in the first time slot, using a waiting time shorter than those for the other radio communication devices.

46. (Previously Presented) The radio communication device according to claim 45, comprising a non-priority communication section that accesses the wireless medium in time slots except for the first time slot, using a waiting time longer than that for one of the other radio communication devices.

47. (Previously Presented) The radio communication device according to claim 41, wherein, the time slot division section is so arranged as to divide the communication period evenly into the plurality of time slots, the communication period having a common length of a common period which is determined among the radio communication devices.

48. (Previously Presented) The radio communication device according to claim 47, comprising a synchronization section that synchronizes with the other radio communication devices regarding the common period.

49. (Previously Presented) The radio communication device according to claim 41, comprising a time slot resetting section that, when it is detected that the radio communication device which can use the second time slot at higher priority shuts down, resets the plurality of time slots so that the second time slot can be used by the radio communication devices.